AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior listings of claims in the application:

LISTING OF CLAIMS:

1-234 were cancelled in an Amendment dated November 26, 2003.

Claims 235-271 Previously Cancelled .

272. (Previously Presented) A method for identifying a compound that putatively modulates a taste receptor polypeptide comprising a human TlR2 polypeptide in a human subject comprising:

(1) screening one or more compounds in a binding assay which identifies compounds that specifically bind to a human T1R2 polypeptide or which modulate (inhibit or enhance) the specific binding of another compound that specifically binds to said human T1R2 polypeptide wherein said T1R2 polypeptide is selected from the group consisting of:

(a) a human T1R2 polypeptide having the amino acid sequence in SEQ. ID. SEQ. NO: 21;

(b) a T1R2 polypeptide that is encoded by a nucleic acid sequence that specifically hybridizes to the hTlR2 nucleic acid sequence in SEQ. ID. NO: 23, under stringent hybridization conditions, which are 50% formamide, 5X SSC and 1% SDS, incubating at 42 degrees C and wash in 0.2X SSC and 0.1% SDS at 65 degrees C and which T1R2 polypeptide specifically binds to a taste ligand that specifically binds to the T1R1 polypeptide in SEQ ID NO:21 and with the further proviso that said T1R2

polypeptide is specifically bound by a sweet ligand that specifically binds the human T1R2 polypeptide in SEQ ID NO:21 ; and;

(c) a T1R2 polypeptide which has an amino acid sequence that possesses at least 90% sequence identity to the amino acid sequence in SEQ. ID. NO: 21;

(2) identifying a compound that putatively modulates or elicits human TlR2-associated taste based on its specific binding to a human T1R2 polypeptide according to (a), (b),or (c), or its modulation (inhibition or enhancement) of the specific binding of another compound to a T1R2 polypeptide according to (a), (b),or (c)..

273. (Previously Presented) The method of claim 272, wherein the human T1R2 polypeptide has the amino acid sequence in SEQ. ID. NO: 21.

274. (Previously Presented) The method of claim 272, wherein the human T1R2 polypeptide possesses at least 90% sequence identity to the polypeptide in SEQ. ID. NO: 21.

275. (Previously Presented) The method of claim 272, wherein the T1R2 polypeptide possesses at least 95% sequence identity to the polypeptide in SEQ. ID. NO: 21.

276. (Previously Presented) The method of claim 272, wherein the T1R2 polypeptide possesses at least 96% sequence identity to the polypeptide in SEQ. ID. NO: 21.

277. (Previously Presented) The method of claim 272, wherein the T1R2 polypeptide possesses at least 97% sequence identity to the polypeptide in SEQ. ID. NO: 21.

278. (Previously Presented) The method of claim 272, wherein the T1R2 polypeptide possesses at least 98% sequence identity to the polypeptide in SEQ. ID. NO: 21.

279. (Previously Presented) The method of claim 272, wherein the T1R2 polypeptide possesses at least 99% sequence identity to the polypeptide in SEQ. ID. NO: 21.

280. (Previously Presented) The method of claim 272, wherein said T1R2 polypeptide is attached to a solid phase.

281. (Previously Presented) The method of claim 272, wherein said TlR2 polypeptide is in solution.

282. (Previously Presented) The method of claim 272, wherein said T1R2 polypeptide is in a lipid bilayer or vesicle.

283. (Previously Presented) The method of claim 272, wherein said T1R2 polypeptide used in the assay is in the form of a cell which expresses said T1R2 polypeptide.

284. (Previously Presented) The method of claim 272, wherein said T1R2 polypeptide is comprised on a cell membrane.

285. (Previously Presented) The method of claim 283, wherein the cell is a prokaryotic cell.

286. (Previously Presented) The method of claim 283, wherein the cell is a eukaryotic cell.

287. (Previously Presented) The method of claim 283, wherein said cell is a yeast, insect, amphibian or mammalian cell.

288. (Previously Presented) The method of claim 283, wherein the cell is a CHO, HEK-293, COS cell, or Xenopus oocyte.

289. (Previously Presented) The method of claims 272, wherein binding to the T1R2 polypeptide results in a detectable change in T1R2 polypeptide conformation.

290. (Previously Presented) The method of claim 289, wherein said change is detected by NMR spectroscopy.

291. (Previously Presented) The method of claim 289, wherein said change is detected by fluorescence spectroscopy.

292. (Previously Presented) The method of claim 283, wherein said cell further expresses a G protein that couples to said T1R2 polypeptide.

293. (Previously Presented) The method of claim 292, wherein said G protein is Gα15 or Gα16 or gustducin.

294. (Previously Presented) The method of claim 272, wherein the binding assay includes the use of a label that facilitates the detection of compounds that bind T1R2 which

label may be attached to the T1R2 polypeptide or to another compound that is used in the binding assay.

295 (Previously Presented) The method of claim 294, wherein said label is an enzyme, radionuclide, chemiluminescent compound or fluorescent compound.

296. (Previously Presented) The method of claim 272, wherein the binding assay detects displacement of a labeled ligand from said T1R2 polypeptide.

297. (Previously Presented) The method of claim 272, wherein said binding assay is a fluorescent polarization or FRET assay.

298. (Previously Presented) The method of claim 272, wherein binding of the compound to T1R2 polypeptide is detected by a competitive binding assay.

299. (Previously Presented) The method of claim 272, wherein the binding of the compound to said T1R2 polypeptide is detected by a non-competitive binding assay.

300. (Previously Presented) The method of claim 272, wherein the binding assay uses an intact or permeabilized cell that expresses said TlR2 polypeptide.

301. (Previously Presented) The method of claims 272, wherein the binding assay detects release of a labeled compound from said T1R2 polypeptide.

302. (Previously Presented) The method of claim 272, wherein the binding assay detects binding based on a detectable change in fluorescence absorbance or refractive index.

303. (Previously Presented) The method of claim 272 which is a high throughput binding assay.

304. (Previously Presented) The method of claim 303 which screens a library of at least 1000 compounds.

305. (Previously Presented) The method of claim 303, wherein said library is a combinatorial chemical library.

306. (Previously Presented) The method of claim 272, which further includes step (3) whereby the effect of said putative taste modulating compound is evaluated in a human taste test.

307. (New) The method of claim 272 wherein said T1R2 polypeptide is expressed by a taste or gastrointestinal cell.

308. (New) The method of claim 272 wherein said T1R2 polypeptide is expressed by a tongue cell, esophageal cell, palate cell or stomach cell.